

1 **Amendments to the Claims:**

2 Claims 1, 2, 3 and 4 (canceled)

3 Claim 5 (new): A bi-directional optical transceiver for either transmitting a first channel
4 having wavelength λ_1 and simultaneously receiving a second channel having a different
5 wavelength λ_2 , or transmitting said second channel having wavelength λ_2 and simultaneously
6 receiving said first channel having wavelength λ_1 through a single fiber optic cable comprising:

7 an optical block having a flat upper surface and a flat lower surface,

8 a reflective coating carried by said upper surface of said optical block,

9 first and second filters carried on said flat lower surface of said optical block, said
10 filters adapted to separately filter said different wavelengths λ_1 and λ_2 ,

11 first and second photodetectors wherein each of said first and second photo-
12 detectors is optically aligned with said first and second filters, respectively, to receive one of
13 said first and second channels through one of said filters,

14 third and fourth filters carried on said flat lower surface of said optical block, said
15 filters adapted to separately filter said wavelengths λ_1 and λ_2 ,

16 first and second beam splitters carried by said third and fourth filters,
17 respectively, and

18 first and second transmitting lasers, said first transmitting laser having an output
19 wavelength λ_1 and second transmitting laser having an output wavelength λ_2 , wherein each
20 of said first and second lasers is optically aligned with one of said first and second beam
21 splitters, and one of said third and fourth filters, respectively,

22 wherein whenever said first transmitting laser is operating at first wavelength λ_1 ,
23 said second transmitting laser is turned off, and said second photodetector is receiving said
24 second channel of wavelength λ_2 and said first photodetector is turned off, and

25 wherein whenever said second transmitting laser is operating at said second
26 wavelength λ_2 said first transmitting laser is turned off, and said first photodetector is receiving

1 said first channel of wavelength λ_1 and said second photodetector is turned off.

2 Claim 6 (new): The apparatus of claim 5, further comprising means for turning on said
3 second transmitting laser and said first photodetector when either said first transmitting laser
4 or said second photodetector fails, thereby creating a built-in redundancy of the transceiver.

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